

California Energy Commission
STAFF REPORT

LOCALIZED HEALTH IMPACTS REPORT

Addendum 5 for a Project With a Location Change Awarded
Funding Through the Alternative and Renewable Fuel and
Vehicle Technology Program Under Solicitation PON-13-609
– Pilot-Scale and Commercial-Scale Advanced Biofuels
Production Facilities

California Energy Commission

Edmund G. Brown Jr., Governor



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ADDENDUM 5

The *Localized Health Impacts (LHI) Report for Selected Projects Awarded Funding Through the Alternative and Renewable Fuel and Vehicle Technology Program Under Solicitation PON-13-609* was posted December 1, 2015 (CEC-600-2014-004-AD4).¹ This addendum uses the same approach to assess the localized health impacts for a project with a location change. The City of Petaluma has proposed augmenting the project location. The anaerobic digester and biogas processing unit will remain at the originally proposed location of 3890 Cypress Drive, Petaluma; however, the fueling station will now be located at 1309 Dynamic Street, Petaluma, a distance of less than five miles. The newly proposed locations are described in Table 1, along with environmental justice (EJ) indicators.² (See Appendix A.)

Table 1: Original and New Site Locations for the City of Petaluma Along With Environmental Justice Indicators

Original Site Location	New Site Location(s)	EJ Indicator(s)
3890 Cypress Drive Petaluma, California 94954	3890 Cypress Drive Petaluma, California 94954	None
	1309 Dynamic Street Petaluma, California 94954	

Source: California Energy Commission

1 Brecht, Patrick, 2015. *Localized Health Impacts Report*. California Energy Commission, Fuels and Transportation Division. Publication Number: CEC-600-2015-004-AD4.

2 The EJ indicators follow: (i.) minority subset represents more than 30 percent of a given city's population (2010), (ii.) city's poverty exceeds California's poverty level of 15.8 percent (2012-2016), (iii.) city's unemployment rate exceeds California's unemployment rate of 4.3 percent as of December 2017, and (iv.) city's percentage of persons younger than 5 years of age or older than 65 years of age is 20 percent higher than California's average. For the entire state, the percentage of persons under the age of 5 years is 6.8 percent, and the percentage of persons over the age of 65 years is 11.4 percent.

Air Quality and EJ Indicators

The newly proposed biorefinery and fueling station locations are both in nonattainment zones for ozone, particulate matter (PM³) 2.5 and PM 10. If a project site is in a nonattainment zone and has more than one EJ indicator, as shown in Table 1, with detail in Table 2, it is considered a high-risk community, according to the Environmental Justice Screening Method.⁴ According to staff's assessment, Petaluma is not considered a high-risk community.

Table 2: Environmental Justice (EJ) Indicators Compared With California
The yellow highlighted area indicates numbers (%) that meet the definition for EJ indicators

	Below Poverty Level (2012-2016)	Black Persons (2010)	American Indian and/or Alaska Native (2010)	Asian and/or Pacific Islander (2010)	Persons of Hispanic or Latino Origin (2010)	Persons Under 5 Years of Age (2010)	Persons Over 65 Years of Age (2010)	Unemployment (December 2017)
California	15.8%	6.2%	1.0%	13.0%	37.6%	6.8%	11.4%	4.3%
EJ Indicator Threshold	>15.8%	>30%	>30%	>30%	>30%	>8.16%	>13.8%	>4.3%
Petaluma	8.6%	1.4%	0.6%	4.5%	21.5%	6.0%	13.1%	2.2%

Sources: Unemployment information from the State of California, Employee Development Department Labor Market Information Div.: <http://www.labormarketinfo.edd.ca.gov/data/unemployment-and-labor-force.html#Tool>. U.S. Census Bureau, <http://www.census.gov/quickfacts/table/PST045215/0664000.06.00>, and http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml.

Location Analysis and Community Impacts

The proposed augmentation to the biorefinery location was assessed according to the original LHI. The environmental justice indicators are unchanged to the original facility location. The project is anticipated to reduce greenhouse gases by replacing diesel vehicles with a lower carbon intensity alternative and by utilizing locally processed waste feedstocks. The impacts to the community where the project is located are positive in terms of air quality.

3 "Particulate matter" is unburned fuel particles that form smoke or soot and stick to lung tissue when inhaled. The numbers stand for microns in diameter.

4 California Air Resources Board (CARB), *Air Pollution and Environmental Justice, Integrating Indicators of Cumulative Impact and Socio-Economic Vulnerability Into Regulatory Decision-Making*, 2010. (Sacramento, California) Contract authors: Manuel Pastor Jr., Ph.D., Rachel Morello-Frosch, Ph.D., and James Sadd, Ph.D.

APPENDIX A:

Localized Health Impact Report Assessment Method

This LHI Report assesses the potential impacts to communities because of the projects proposed by the ARFVTP. This report is prepared under the *California Code of Regulations, Title 13, Motor Vehicles, Chapter 8.1 (CCR § 2343)*:

(6) Localized health impacts must be considered when selecting projects for funding. The funding agency must consider environmental justice consistent with state law and complete the following:

(A) For each fiscal year, the funding agency must publish a staff report for review and comment by the public at least 30 calendar days prior to approval of projects. The report must analyze the aggregate locations of the funded projects, analyze the impacts in communities with the most significant exposure to air contaminants or localized air contaminants, or both, including, but not limited to, communities of minority populations or low-income populations, and identify agency outreach to community groups and other affected stakeholders.

(B) Projects must be selected and approved for funding in a publicly noticed meeting.

This LHI Report is not intended to be a detailed environmental health impact analysis of proposed projects nor is it intended to substitute for the environmental review conducted during the California Environmental Quality Act (CEQA) review. This LHI Report includes staff's application of the Environmental Justice Screening Method (EJSM) to identify projects located in areas with social vulnerability indicators and the greatest exposure to air pollution and associated health risks.⁵

The EJSM was developed to identify low-income communities highly affected by air pollution for assessing the impacts of climate change regulations, specifically Assembly Bill 32 (Núñez, Chapter 488, Statutes of 2006), the California Global Warming Solutions Act of 2006. The EJSM integrates data on (1) exposure to air pollution, (2) cancer risk, (3) ozone concentration, (4) frequency of high ozone days, (5) race/ethnicity, (6) poverty level, (7) home ownership, (8) median household value, (9) educational attainment, and (10) sensitive populations (populations under 5 years of age or over 65 years of age).

⁵ California Air Resources Board (CARB). *Air Pollution and Environmental Justice, Integrating Indicators of Cumulative Impact and Socio-Economic Vulnerability Into Regulatory Decision-Making*, 2010. (Sacramento, California) Contract authors: Manuel Pastor Jr., Ph.D., Rachel Morello-Frosch, Ph.D., and James Sadd, Ph.D.

To determine high-risk communities, environmental justice (EJ) indicators for locations of biorefinery facilities are compared to data from the U.S. Census Bureau or other public agency. Staff identifies high-risk communities by using a two-part standard. For a community to be considered high-risk, for this assessment, it must meet both Parts 1 and 2 of this standard.

Part 1:

- Communities located in nonattainment air basins for ozone, PM 2.5 or PM 10

Part 2:

- Communities having more than one of the following EJ indicators: (1) minority, (2) poverty, (3) unemployment, and (4) high percentage of population under 5 years of age and over 65 years of age. The EJ indicators follow:
 - A minority subset represents more than 30 percent of a given city's population.
 - A city's poverty level exceeds California's poverty level.
 - A city's unemployment rate exceeds California's unemployment rate.
 - The percentage of people living in that city are younger than 5 years of age or older than 65 years of age is 20 percent higher than the average percentage of persons under 5 years of age or over 65 years of age for all of California.